

AMENDMENTS

Please cancel claims 18, 25-27, 35, 42, and 48-67 without prejudice. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method of treating or identifying diseased tissues in a subject, comprising:

(A) administering to said subject a bi-specific antibody or antibody fragment having at least one arm that specifically binds a targeted tissue and at least one other arm that specifically binds a targetable conjugate comprising at least two HSG haptens, wherein said at least one other arm that specifically binds a targetable conjugate comprising at least two HSG haptens comprises the Fv of mAb 679;

(B) optionally, administering to said subject a clearing composition, and allowing said composition to clear non-localized antibodies or antibody fragments from circulation;

(C) administering to said subject a targetable conjugate which comprises a carrier portion which comprises or bears at least two HSG haptens and may comprise a diagnostic or therapeutic cation, and/or one or more chelated or chemically bound therapeutic or diagnostic agents, or enzymes; and

(D) when said targetable conjugate comprises an enzyme, further administering to said subject

1) a prodrug, when said enzyme is capable of converting said prodrug to a drug at the target site; or

2) a drug which is capable of being detoxified in said subject to form an intermediate of lower toxicity, when said enzyme is capable of reconvertng said detoxified intermediate to a toxic form, and, therefore, of increasing the toxicity of said drug at the target site, or

3) a prodrug which is activated in said subject through natural processes and is subject to detoxification by conversion to an intermediate of lower toxicity, when said enzyme is capable of reconverting said detoxified intermediate to a toxic form, and, therefore, of increasing the toxicity of said drug at the target site.

2. (Original) The method of claim 1, wherein said diagnostic agent emits 25-600 keV gamma particles and/or positrons.

3. (Original) The method of claim 1, wherein said therapeutic agent is a drug, prodrug or toxin.

4. (Original) The method of claim 3, wherein said prodrug is selected from the group consisting of epirubicin glucuronide, CPT-11, etoposide glucuronide, daunomicin glucuronide and doxorubicin glucuronide.

5. (Original) The method of claim 3, wherein said toxin is selected from the group consisting of ricin, abrin, ribonuclease, DNase I, *Staphylococcal* enterotoxin-A, pokeweed antiviral protein, gelonin, diphtherin toxin, *Pseudomonas* exotoxin, and *Pseudomonas* endotoxin.

6. (Previously Presented) The method of claim 1, wherein said targetable conjugate further comprises a therapeutic nuclide bound thereto.

7. (Original) The method of claim 6, wherein said therapeutic nuclide is selected from the group consisting of ^{32}P , ^{33}P , ^{47}Sc , ^{64}Cu , ^{67}Cu , ^{67}Ga , ^{90}Y , ^{111}Ag , ^{111}In , ^{125}I , ^{131}I , ^{142}Pr , ^{153}Sm , ^{161}Tb , ^{166}Dy , ^{166}Ho , ^{177}Lu , ^{186}Re , ^{188}Re , ^{189}Re , ^{212}Pb , ^{212}Bi , ^{213}Bi , ^{211}At , ^{223}Ra and ^{225}Ac .

8. (Original) The method of claim 2, wherein said diagnostic agent is selected from the group consisting of ^{18}F , ^{52}Fe , ^{62}Cu , ^{64}Cu , ^{67}Cu , ^{67}Ga , ^{68}Ga , ^{86}Y , ^{89}Zr , $^{94\text{m}}\text{Tc}$, ^{94}Tc , $^{99\text{m}}\text{Tc}$, ^{111}In , ^{123}I , ^{124}I , ^{125}I , and ^{131}I .

9. (Original) The method of claim 1, wherein said targetable conjugate comprises one or more radioactive isotopes useful for killing diseased tissue.

10. (Original) The method of claim 1, wherein said targetable conjugate comprises ^{10}B atoms, and said method further comprises the step of irradiating said boron atoms localized at said diseased tissue, thereby effecting BNCT of said diseased tissue.

Claims 11-18 (Canceled).

19. (Original) The method of claim 1, wherein said targetable conjugate comprises one or more image enhancing agents for use in magnetic resonance imaging (MRI).

20. (Original) The method of claim 19, wherein said enhancing agent is selected from the group consisting of Mn, Fe and Gd.

21. (Original) The method of claim 1, wherein the targetable conjugate comprises one or more agents for photodynamic therapy.

22. (Original) The method of claim 21, wherein said agent for photodynamic therapy is a photosensitizer.

23. (Original) The method of claim 22, wherein said photosensitizer is selected from the group consisting of benzoporphyrin monoacid ring A (BPD-MA), tin etiopurpurin (SnET2), sulfonated aluminum phthalocyanine (AlSPc) and lutetium texaphyrin (Lutex).

24. (Original) The method of claim 1, wherein said at least one arm that specifically binds a targeted tissue is a monoclonal antibody or a fragment of a monoclonal antibody.

Claims 25-29 (Canceled).

30. (Original) The method of claim 1, wherein said targetable conjugate comprises doxorubicin, SN-38, etoposide, methotrexate, 6-mercaptopurine or etoposide phosphate.

31. (Original) The method of claim 1, wherein said targeted tissue is a tumor.

32. (Previously Presented) The method of claim 31, wherein said tumor produces or is associated with colon-specific antigen-p (CSAp)

33. (Previously Presented) The method of claim 32, wherein said at least one arm of the bispecific antibody that specifically binds a targeted tissue comprises one or more of the CDRs of Mu-9.

34. (Previously Presented) The method of claim 33, wherein said bispecific antibody is humanized.

35. (Canceled).

36. (Previously Presented) The method of claim 33, wherein the bispecific antibody comprises the Fv of mAb Mu-9.

37. (Canceled).

38. (Original) The method of claim 31, wherein the bispecific antibody is a fusion protein.

39. (Original) The method of claim 31, wherein the tumor produces carcinoembryonic antigen (CEA).
40. (Previously Presented) The method of claim 39, wherein said at least one arm of the bispecific antibody that specifically binds a targeted tissue comprises one or more of the CDRs of MN-14.
41. (Previously Presented) The method of claim 40, wherein said bispecific antibody is humanized.
42. (Canceled).
43. (Previously Presented) The method of claim 40, wherein the bispecific antibody comprises the Fv of mAb MN-14.
44. (Canceled).
45. (Original) The method of claim 40, wherein the bispecific antibody is a fusion protein.
46. (Original) The method of claim 45, wherein the fusion protein is trivalent, and incorporates the Fv of an antibody reactive with CSAp.
47. (Previously Presented) The method of claim 39, wherein the bispecific antibody incorporates a Class III anti-CEA antibody.

Claims 48-67 (Canceled).